

- 18 -

**CLAIMS:**

1. A protective housing for a fibre optic cable and cable junction box, comprising opposed spaced apart panels defining an interior space and which open to expose said interior space, at least one sidewall between said panels,  
5 and an optionally removable insert substantially filling said interior space, said insert including at least one channel, an end of which opens to the exterior of said housing when closed, said channel also opening to the surface of said insert for insertion of cable therein when said housing is open, said channel defining a tortuous path for receiving and gripping said cable, and a void within  
10 said insert for retaining a cable junction box in communication with said cable.
2. A housing as defined in claim 1, further comprising a removable outer casing for at least partly surrounding said housing for additional crush-resistance.
3. A housing as defined in claim 2, wherein said outer casing comprises a  
15 pair of spaced-apart opposed walls, a base and a removable cap defining an interior space with open ends to receive said housing.
4. A housing as defined in claim 3, wherein said walls are removable from said base, said base comprising a pair of spaced apart upstanding rails and said walls each including a downwardly dependent channel for mating with a  
20 corresponding rail.
5. A housing as defined in claim 1, further comprising a rigid protective cap for independent installation within a surface at a position above said housing, said cap including at least one emboss protruding outwardly from said cap for engagement with said hard surface.
- 25 6. A housing for a cable junction box for use in a fibre optic network, comprising at least two substantially flat, open-topped receptacles joined together by a first flexible web for folding said receptacles together like a book

- 19 -

with said open tops covered when closed, each of said receptacles comprising a floor and sidewalls defining an interior space, said sidewalls including openings for passing cable between said interior spaces, a first of said receptacles including a space to receive a cable junction box and a second of said  
5 receptacles being arranged to receive at least one loop of cable within said interior space, said housing further including at least one entry and exit port to sealingly receive fibre optic cable within the interior thereof.

7. A housing as defined in claim 6, further including at least one hub protruding from the floor of said second receptacle into the interior thereof for  
10 receiving a loop of cable within the interior space of said second panel.

8. A housing as defined in claim 6, wherein said cable entry and exit ports comprise at least one slot within said sidewall opening to the exposed upper surface of said sidewall when said housing is open, for inserting a length of uncut cable into the interior of said housing.

9. A housing as defined in claim 6, further comprising a third of said receptacles, joined to said second receptacle by a second of said flexible webs, said first, second and third receptacles being substantially identical in plan configuration, said first, second and third receptacles being arranged for folding together in a book-like fashion, said third receptacle comprising additional cable  
15 receiving means for receiving at least one additional loop of cable within the interior space thereof.  
20

10. A housing as defined in claim 9, wherein said first and second flexible webs form exterior opposed sidewalls of said housing when closed.

11. A housing as defined in any of claims 6 to 10, further comprising a hollow  
25 outer casing having an open top, an upper rim and at least two opposed slots opening to said rim for receiving cable into the interior of said casing and a removable lid for capping said open top, said slots being arranged for passing a channel-cutting tool through said slots in a single motion while cutting a cable

- 20 -

channel through said surface, said outer casing being shaped to receive said housing within the interior thereof.

12. A housing as defined in claim 11, wherein said outer casing is substantially cylindrical for insertion within a cylindrical hole.

5 13. A housing as defined in claim 11, wherein said outer casing includes a plurality of opposed substantially flat inner faces for retaining said inner housing.

14. A method of fabricating and installing within a surface a pre-assembled cable system comprising the steps of assembling at a remote location a system comprising:

10 a trunk cable line, a plurality of branch cable lines extending at intervals from said trunk line, and cable junction box housings at each intersection between branch and trunk lines;

determining node locations and cutting openings with said surface at said node locations;

15 providing and installing an open-topped outer casing within each of said openings, said casings including opposed slots opening to said open tops of said casings;

cutting a network of channels joining said nodes, said channels being aligned with said slots of said housings; and

20 installing by surface inlay said cables and junction box housings within said channels and said casings respectively.

15. A method as defined in claim 14 comprising the further step of cutting channels within said surface for said branch lines extending from at least one of said nodes.

25 16. A method as defined in claim 14, wherein said junction box housing is as defined in any of claims 1 to 10.